



IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/789,071

DATE: 09/01/2004

TIME: 11:44:41

Input Set : N:\Crf3\RULE60\10789071.raw

Output Set: N:\CRF4\09012004\J789071.raw

1 <110> APPLICANT: Yunn-Bor Yang
 2 Chia-Li Wei
 3 Jyh-Shing Hsu
 4 Ying-Chieh Tsai
 5 <120> TITLE OF INVENTION: Mutated Penicillin Expandase and Process for Preparing 7-
 ADCA Using
 6 the Same
 7 <130> FILE REFERENCE: 6653-017-999
 8 <140> CURRENT APPLICATION NUMBER: US/10/789,071
 9 <141> CURRENT FILING DATE: 2004-02-27
 10 <150> PRIOR APPLICATION NUMBER: US/10/105,319
 11 <151> PRIOR FILING DATE: 2002-03-26
 12 <160> NUMBER OF SEQ ID NOS: 1
 13 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 15 <210> SEQ ID NO: 1
 16 <211> LENGTH: 1230
 17 <212> TYPE: DNA
 18 <213> ORGANISM: Streptomyces clavuligerus
 19 <220> FEATURE:
 20 <221> NAME/KEY: CDS
 21 <222> LOCATION: (232)...(1164)
 22 <400> SEQUENCE: 1
 23 cccgggtgcc gctggtcagc gccaccggat cgaccggtat gggccgcgcc gtgggcccc 60
 24 gggccggtgc tccgatctc ggcgaaacttc tacaccaccg aagaggagat cgaccgcctg 120
 25 gcggacgcgc tggacgcgct gacgggcgag tgatcccccc ggctcgcgga ccgcctcccc 180
 26 cgcgctgttg accaccgggt tcacggatta cgagaggatc agtgagagtt g atg gac 237
 27 Met Asp
 28 1
 29 acg acg gtg ccc acc ttc agc ctg gcc gaa ctc cag cag ggc ctg cac 285
 30 Thr Thr Val Pro Thr Phe Ser Leu Ala Glu Leu Gln Gln Gly Leu His
 31 5 10 15
 32 cag gac gag ttc cgc agg tgt ctg agg gac aag ggc ctc ttc tat ctg 333
 33 Gln Asp Glu Phe Arg Arg Cys Leu Arg Asp Lys Gly Leu Phe Tyr Leu
 34 20 25 30
 35 acg gac tgc ggt ctg acc gac acc gag ctg aag tcg gcc aag gac atc 381
 36 Thr Asp Cys Gly Leu Thr Asp Thr Glu Leu Lys Ser Ala Lys Asp Ile
 37 35 40 45 50
 38 gtc atc gac ttc ttc gag cac ggc agc gag gcg gag aag cgc gcc gtc 429
 39 Val Ile Asp Phe Phe Glu His Gly Ser Glu Ala Glu Lys Arg Ala Val
 40 55 60 65
 41 acc tcg ccc gtc ccc acc atg cgc cgc ggc ttc acc ggg ctg gag tcg 477
 42 Thr Ser Pro Val Pro Thr Met Arg Arg Gly Phe Thr Gly Leu Glu Ser
 43 70 75 80
 44 gag agc acc gcc cag atc acc aat acc ggc agc tac tcc gac tac tcg 525

ENTERED

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45	Glu Ser Thr Ala Gln Ile Thr Asn Thr Gly Ser Tyr Ser Asp Tyr Ser	
46	85 90 95	
47	atg tgc tac tcg atg ggc acc gcg gac aac ctc ttc ccg tcc ggt gac	573
48	Met Cys Tyr Ser Met Gly Thr Ala Asp Asn Leu Phe Pro Ser Gly Asp	
49	100 105 110	
50	ttc gag cgg atc tgg acc cag tac ttc gac cgc cag tac acc gcc tcc	621
51	Phe Glu Arg Ile Trp Thr Gln Tyr Phe Asp Arg Gln Tyr Thr Ala Ser	
52	115 120 125 130	
53	cgc gcg gtc gcc cgg gag gtc ctg cgg gcg acc ggg acc gag ccc gac	669
54	Arg Ala Val Ala Arg Glu Val Leu Arg Ala Thr Gly Thr Glu Pro Asp	
55	135 140 145	
56	ggc ggg gtc gag gcc ttc ctc gac tgc gag ccg ctg ctg cgg ttc cgc	717
57	Gly Gly Val Glu Ala Phe Leu Asp Cys Glu Pro Leu Leu Arg Phe Arg	
58	150 155 160	
59	tac ttc ccg cag gtc ccc gag cac cgc agc gcc gag gag cag ccc ctg	765
60	Tyr Phe Pro Gln Val Pro Glu His Arg Ser Ala Glu Glu Gln Pro Leu	
61	165 170 175	
62	cgg atg gcg ccg cac tac gac ctg tcg atg gtc acc ctc atc cag cag	813
63	Arg Met Ala Pro His Tyr Asp Leu Ser Met Val Thr Leu Ile Gln Gln	
64	180 185 190	
65	aca ccc tgc gcc aac ggc ttc gtc agc ctc cag gcc gag gtc ggc ggc	861
66	Thr Pro Cys Ala Asn Gly Phe Val Ser Leu Gln Ala Glu Val Gly Gly	
67	195 200 205 210	
68	gcg ttc acg gac ctg ccc tac cgt ccg gac gcc gtc ctc gtc ttc tgc	909
69	Ala Phe Thr Asp Leu Pro Tyr Arg Pro Asp Ala Val Leu Val Phe Cys	
70	215 220 225	
71	ggc gcc atc gcg acc ctg gtg acc ggc ggc cag gtc aag gcc ccc cgg	957
72	Gly Ala Ile Ala Thr Leu Val Thr Gly Gly Gln Val Lys Ala Pro Arg	
73	230 235 240	
74	cac cat gtc gcg gcc ccc cgc agg gac cag ata gcg ggc agc agc cgc	1005
75	His His Val Ala Ala Pro Arg Arg Asp Gln Ile Ala Gly Ser Ser Arg	
76	245 250 255	
77	acc tcc agt gtg ttc ttc ctc cgt ccc aac gcg gac ttc acc ttc tcc	1053
78	Thr Ser Ser Val Phe Phe Leu Arg Pro Asn Ala Asp Phe Thr Phe Ser	
79	260 265 270	
80	gtc ccg ctg gcg cgc gag tgc ggc ttc gat gtc agc ctg gac ggc gag	1101
81	Val Pro Leu Ala Arg Glu Cys Gly Phe Asp Val Ser Leu Asp Gly Glu	
82	275 280 285 290	
83	acc gcc acg ttc cag gat tgg atc ggg ggc aac tac gtg aac atc cgc	1149
84	Thr Ala Thr Phe Gln Asp Trp Ile Gly Gly Asn Tyr Val Asn Ile Arg	
85	295 300 305	
86	cgc aca tcc aag gca tagagagcac acaccgtcat ggtcacagca gcaatcagtg	1204
87	Arg Thr Ser Lys Ala	
88	310	
89	gtaccgacga gatacgcgcg agggcg	1230

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/789,071

DATE: 09/01/2004
TIME: 11:44:42

Input Set : N:\Crf3\RULE60\10789071.raw
Output Set: N:\CRF4\09012004\J789071.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 5

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/789,071

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